



Innovating Radiation Detection Technologies Since 1992

# SURVEY METER PM1405



The PM1405 Survey meter is designed for a wide range of radiation safety applications.

The instrument measures beta radiation flux density from contaminated surfaces and ambient dose equivalent rate of gamma and X-ray radiation. It alerts the user with audible alarms when preset radiation levels are exceeded.

The instrument also has the search mode in which it registers with an audio signal every detected count.

Application-specific user software allows for the remote control of the instruments connected to a PC through USB interface from any PC integrated into the network. This function allows an administrator to monitor and control operation of each instrument.



## Features

- Measurement of gamma and X-ray radiation
- Measurement of beta-particles flux density
- Search for beta, gamma and X-ray radiation sources mode
- Large LCD display with backlight
- Audible alarm
- Data logging capability
- PC communication via USB interface
- Universal power supply: two AA batteries or from PC via USB
- Light weight and small dimensions

## Applications

- First responders
- Custom and border patrol officers
- Radiological and radionuclide isotope laboratories
- Bank personnel
- Wide range of experts whose activity involves the monitoring of radiation sources

**ALARM****LOCATION****MEASUREMENT****USB** **ISO 9001**



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## SPECIFICATIONS

Gamma detector	Geiger-Mueller counter
<b>Dose equivalent rate (DER) indication range</b>	<b>0.01 <math>\mu\text{Sv/h}</math> - 130 mSv/h</b>
<b>Maximum intrinsic relative error of DER measurement in the range 0.1 <math>\mu\text{Sv/h}</math> - 100 mSv/h</b>	$\pm(20 + K/X)\%$ , where X - DER value in $\mu\text{Sv/h}$ , K = 1 $\mu\text{Sv}$
<b>X-ray and gamma radiation energy range</b>	<b>0.05 to 3.0 MeV</b>
<b>Energy dependence relative to 0.662 MeV (<math>^{137}\text{Cs}</math>) in DER measurement mode in the energy range 0.06 - 3.0 MeV, not more than</b>	$\pm 30\%$
<b>Beta flux density indication range</b>	<b>0.1 - <math>10^4 \text{ min}^{-1}\cdot\text{cm}^{-2}</math></b>
<b>Maximum intrinsic relative error of beta flux density measurement relative to (<math>^{90}\text{Sr}+^{90}\text{Y}</math>) in the range 6.0 - <math>10^3 \text{ min}^{-1}\cdot\text{cm}^{-2}</math></b>	$(20 + A/\phi)\%$ , where $\phi$ -beta-flux density, $\text{min}^{-1}\cdot\text{cm}^{-2}$ , A = 60 $\text{min}^{-1}\cdot\text{cm}^{-2}$
<b>Beta radiation energy range</b>	<b>0.1 to 3.5 MeV</b>
<b>Beta sensitivity relative to (<math>^{90}\text{Sr}+^{90}\text{Y}</math>), not less than</b>	<b>3.5 counts<math>\cdot\text{cm}^2</math></b>
<b>Communication with computer</b>	<b>USB interface</b>
<b>Power requirements</b>	<b>two AA batteries or external from PC via USB</b>
<b>Batteries lifetime</b>	<b>6 months typical</b>
<b>Environmental:</b> - temperature range - relative humidity	<b>-10 to +50°C</b> <b>up to 95 % at 35°C</b>
<b>Weight, max</b>	<b>290 g</b>
<b>Dimensions</b>	<b>148x85x40 mm</b>

Design and specifications of the device can be changed without further notice.

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